

1. Input

```
[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi input.py
[lsaad1@gsuad.gsu.edu@snowball lab5]$ more input.py
enter = raw_input(" Enter a string: ");
print(enter)

[lsaad1@gsuad.gsu.edu@snowball lab5]$ python input.py
[ Enter a string: hello my name is laura
hello my name is laura
[lsaad1@gsuad.gsu.edu@snowball lab5]$
```

2. Integer Input

```
input.py integer.py leap.py palindrome.py say.py sum1000.py unsay.py
[lsaad1@gsuad.gsu.edu@snowball lab5]$ more integer.py
Input = raw_input("Enter a number: \n ")
print(Input)
print("input type")
print(type(Input))
try:
    a = int(Input)
    print("number conversion: \n")
    print(a)
    print("converted to type:")
    print(type(a))
except:
    print("Sorry, not an INT")

[lsaad1@gsuad.gsu.edu@snowball lab5]$ python integer.py
Enter a number:
[ 20
20
input type
<type 'str'>
number conversion:

20
converted to type:
<type 'int'>
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python integer.py
Enter a number:
[ twenty
twenty
input type
<type 'str'>
Sorry, not an INT
[lsaad1@gsuad.gsu.edu@snowball lab5]$
```

3. Leap Year

```
laurasaad — Isaac1@gsu.edu@snowball:~/3320/lab5 — ssh Isaac1@sn...  
Input = raw_input("Enter a year: \n")  
year = int(Input)  
if ((year % 100 == 0) and (year % 400 == 0)):  
    print("%d is a leap year.\n" % year)  
elif(year % 4 == 0):  
    print("%d is a leap year.\n" % year)  
else:  
    print("%d is not a leap year.\n" % year)  
  
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"leap.py" 9L, 248C

4,2-9 All

```
laurasaad — lsaad1@gsuad.gsu.edu@snowball:~/3320/lab5 — ssh lsaad1@sn...  
^  
SyntaxError: invalid syntax  
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi leap.py ]  
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python leap.py ]  
Enter a year:  
[2006 ]  
2006 is not a leap year.  
  
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python leap.py ]  
Enter a year:  
[1996 ]  
1996 is a leap year.  
  
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python leap.py ]  
Enter a year:  
[2020 ]  
2020 is a leap year.  
  
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python leap.py ]  
Enter a year:  
[2019 ]  
2019 is not a leap year.  
  
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ ]
```

4. Sum all the integers below 1000 that are multiples of 3 or 5

[illegible]

5. Palindromes

```
def palindrome():
    rangeI = xrange(100,1000)
    rangeJ = xrange(10,100)
    pal = 0
    for i in rangeI:
        for j in rangeJ:
            product = i * j
            if str(product) == str(product) [::-1]:
                if product > pal:
                    pal = product
    return pal
print(palindrome())
```

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[lsaad1@gsuad.gsu.edu@snowball lab5]$ python palindrome.py
94149
```

6.Say

```
laurasaad — lsaad1@gsuad.gsu.edu@snowball:~/3320/lab5 — ssh lsaad1@snowball.cs.gsu.edu — 100...
oneTo9 = ['zero', 'one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
elevenTo19 = ['eleven', 'twelve', 'thirteen', 'fourteen', 'fifteen', 'sixteen',
'seventeen', 'eighteen', 'nineteen']
tens = ['ten', 'twenty', 'thirty', 'forty', 'fifty', 'sixty', 'seventy', 'eighty',
'ninety', 'one hundred']

number = input('Enter number: ')
number = int(number)
if number < 10:
    print("Number is: ", oneTo9[number])
elif number < 20 and number > 10:
    print("Number is: ", elevenTo19[number % 10 - 1])
elif number % 10 == 0:
    print("Number is: ", tens[int(number / 10)-1])
else:
    tens = tens[int(number / 10) - 1]
    oneTo9 = oneTo9[number % 10]
    print tens, "-", oneTo9

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```
Enter number: 100
('Number is: ', 'one hundred')
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi say.py
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python say.py
Enter number: 80
('Number is: ', 'eighty')
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi say.py
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python say.py
Enter number: 50
('Number is: ', 'fifty')
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi say.py
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python say.py
Enter number: 35
thirty - five
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python say.py
Enter number: 55
fifty - five
[[lsaad1@gsuad.gsu.edu@snowball lab5]$ python say.py
Enter number: 91
ninety - one
[[lsaad1@gsuad.gsu.edu@snowball lab5]$
```

7.Unsay

```
laurasaad — lsaad1@gsuad.gsu.edu@snowball:~/3320/lab5 — ssh lsaad1@snowball.cs.gsu.edu — 100...
OneTo9 = ['zero', 'one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
elevenTo19 = ['eleven', 'twelve', 'thirteen', 'fourteen', 'fifteen', 'sixteen',
'seventeen', 'eighteen', 'nineteen']
tens = ['ten', 'twenty', 'thirty', 'forty', 'fifty', 'sixty', 'seventy', 'eighty',
'ninety']

def find(str):
    try:
        temp = OneTo9.index(str)
    except:
        try:
            temp = elevenTo19.index(str)+11
        except:
            temp = tens.index(str)+1
            temp = temp * 10
    return temp;

number=raw_input('Enter a string number: ')
number=number.split(' ')
n = len(number)
if( n == 1):
    num1 = find(number[0])
    print(num1)
else:
    num1 = find(number[0])
    num2 = find(number[1])
    print( num1 + num2)

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[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi unsay.py
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python unsay.py
Enter a string number: fifty
50
[lsaad1@gsuad.gsu.edu@snowball lab5]$ ninety five
-bash: ninety: command not found
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python unsay.py
Enter a string number: ninety five
95
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python unsay.py
Enter a string number: seventy nine
79
[lsaad1@gsuad.gsu.edu@snowball lab5]$ fifty nine
-bash: fifty: command not found
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python unsay.py
Enter a string number: fifty nine
59
[lsaad1@gsuad.gsu.edu@snowball lab5]$
```


8. Multiply By Words

```
laurasaad — lsaad1@gsuad.gsu.edu@snowball:~/3320/lab5 — ssh lsaad1@snowball.cs.gsu.edu — 100...
OneTo9 = ['zero', 'one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
elevenTo19 = ['eleven', 'twelve', 'thirteen', 'fourteen', 'fifteen', 'sixteen',
'seventeen', 'eighteen', 'nineteen']
tens = ['ten', 'twenty', 'thirty', 'forty', 'fifty', 'sixty', 'seventy', 'eighty',
'ninety', 'one hundred']

def find(str):
    try:
        temp = OneTo9.index(str)
    except:
        try:
            temp = elevenTo19.index(str)+11
        except:
            temp=tens.index(str)+1
            temp=temp * 10
    return temp;

firstNumber=raw_input('Enter a number in string below 100: ')
secNumber=raw_input('Enter a number in string below 100: ')
firstNumber = firstNumber.split('-')
n = len(firstNumber)
if(n==1):
    firstNumber = find(firstNumber[0])
else:
    temp1 = find(firstNumber[0])
    temp2 = find(firstNumber[1])
    firstNumber = temp1 + temp2

secNumber=secNumber.split('-')
n2 = len(secNumber)
if(n2==1):
    secNumber = find(secNumber[0])
else:
    temp3 = find(secNumber[0])
    temp4 = find(secNumber[1])
    secNumber = temp3 + temp4

total = firstNumber * secNumber
print firstNumber, '+', secNumber, '=', total

"MulByWords.py" 42L, 1075C 39,1 All
```

```
[lsaad1@gsuad.gsu.edu@snowball lab5]$ vi MulByWords.py
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python MulByWords.py
[Enter a number in string below 100: fifty
[Enter a number in string below 100: fifty
50 * 50 = 2500
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python MulByWords.py
[Enter a number in string below 100: twenty
[Enter a number in string below 100: thirty
20 * 30 = 600
[lsaad1@gsuad.gsu.edu@snowball lab5]$ python MulByWords.py
[Enter a number in string below 100: fifty
[Enter a number in string below 100: five
50 * 5 = 250
[lsaad1@gsuad.gsu.edu@snowball lab5]$
```